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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,945	03/12/2004	Satoshi Shinpuku	19546.0050	6888

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Edward A. Pennington
Swidler Berlin Shereff Friedman, LLP
Suite 300
3000 K Street, NW
Washington, DC 20007-5116

EXAMINER

LIE, ANGELA M

ART UNIT	PAPER NUMBER
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2163

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/798,945	SHINPUKU ET AL.	
	Examiner	Art Unit	
	Angela M. Lie	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 1, 2, 3, 8, 9 and 10 are rejected under 35 U.S.C. 112, second paragraph**, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. In particular the phrase "estimation of paragraph" is unclear and indefinite. The instant specification also does not contain sufficient support for this limitation. For the purposes of the examination and due to the existence of the indefinite limitation, the examiner interprets the "estimation of paragraph", as ranking received results.

Claim Objections

4. Claim 6 is objected to because of the following informalities:
5. The limitations disclosed in claim 6, appear to be unclear because there is no teaching, in claim 6 or in the preceding claims from which it depends, about obtaining any questions, therefore if the questions are not present (i.e. were not collected), there can be no sorting. Furthermore the relation between the questions and the relevant text is unknown. For the purpose of the examination examiner considers a question to be equivalent with relevant documents (terms, search results).

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6. Moreover, how does the applicant decide which questions are relevant to determine frequent passages (the word "some" causes this confusion)? The applicant is reminded that the claim language has to be very clear, and shall not leave any doubt about its scope.

7. Appropriate correction is required.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1-4 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milic-Frayling et al (US Publication 20060059138) in the view of Spencer (US Patent 5915249).**

As to claims 1-3 and 8-10, Milic-Frayling teaches a text information generating apparatus comprising:

attribute input section operatively connected to receive at least one artificial attribute associated with a paragraph (Figure 2B, element 205, wherein each document can have one paragraph);

discourse structure attribute generating section operatively connected to generate a discourse structure attribute related to a discourse structure that is associated with the paragraph (Figure 2B, element 227);

combination attribute generating section operatively connected to generate a combination attribute based on at least two of the artificial attribute, the discourse structure attribute, and the paragraph length ratio attribute (Figure 2B, element 228; paragraph 85);

corpus database operatively connected to hold data which is paragraph (paragraph 46, wherein stored analyzed documents comprise at least one paragraph), position information in a text of each paragraph (wherein the highlighted portion of the text, indicated the position in the paragraph because once highlighted portion clearly identifies which portion of the paragraph could be persistent to a search, paragraph 51) and estimation of paragraph (Figure 5, step 525);

importance degree estimating operatively connected to estimate an importance degree indicating an enhancement degree of correlation between the paragraph the text based on at least one of the artificial attribute, the discourse structure attribute, the paragraph length ratio, and the combination attribute using a data (Figure 2B, element 240; document relevance ranking. i.e. the relevance degree has to be established in order to allow ranking process to take place) in the corpus database (wherein data about the searched content can be stored at the remote location (paragraph 36, and figure 2A, element 210 and paragraph 46);

text input interface operatively connected to receive text (Figure 2B, elements 227 and 216);

important paragraph determining section operatively connected to determine an important paragraph having higher correlation with the text based in the estimated

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importance degree of each attribute from one or more paragraphs in the text (paragraph 66, i.e. documents or paragraphs with the highest relevance collect top scores);

text output interface operatively connect to provide information of the text that is based on the determination of the important paragraph determining section (paragraph 82, i.e. result page).

Milic-Frayling also teaches ranking although he does not particularly list the method of achieving this result, in particular he does not explicitly teach a paragraph length ratio attribute related to a ratio of a number of characters of matching pattern matched with the paragraph.

Spencer teaches the method and system for query evaluation wherein method is using a scoring function wherein IDF (inverse document frequency) is taken under account. Furthermore the IDF algorithm involves counting the frequency of an occurrence of the specified term and comparing it with the length of a document (column1, lines 44-56).

It would have been obvious to one of ordinary skill in the art during the time the invention was made to use the IDF algorithm in order to determine the importance or relevance of the certain passage with respect to the user's query as taught by Spencer, in Milic-Frayling's document searching, highlighting and ranking process because an IDF algorithm is very well known in the art of ranking documents based on the best match (i.e. number of term occurrences with respect to the entire length of the document (ratio)). Furthermore, IDF method is also fast and inexpensive.

10. Note regarding claim 2, the word attribute generating section is equivalent with linguistic section in figure 2B, element 229.

As to claim 4, Milic-Frayling teaches the text information generating apparatus and method wherein information of text outputted from the text output interface includes an abstract sentence based on the paragraph determined as the important paragraph (paragraph 75, wherein the summary is considered to represent an abstract).

As to claim 7, Milic-Frayling teaches the text information generating apparatus and method wherein a searching section operatively connected to search for predetermined contents in text based on the information of the text (paragraph 75; once the desired pages are selected (216) the system searches for the specific sentences or words).

11. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milic-Frayling et al (US Publication 20060059138) in the view of Spencer (US Patent 5915249) and further in the view of Vailaya et al (US Publication 2003/0220747).

As to claim 5, Milic-Frayling and Spencer teach all the limitations disclosed in claim 1, Milic-Frayling also teaches an incident clustering section (summarizing portion, paragraph 75), however they do not explicitly teach making one set of text from a plurality of texts using text information provided by the text information generating apparatus above. Vailaya teaches a system and method for extracting pre-existing data from multiple formats and representing data in common format wherein this type of data mining may extract a portion of a paragraph containing one or more words of interest

(paragraph 59). It would have been obvious to one of the ordinary skill in the art during the time the invention was made to combine plural information from more than one paragraph or document into one passage as taught by Vailaya, and make a use of it in Milic-Frayling's data processing system because it allows the user to process large amount of data even if the database size increases by providing the summary or extraction of the most relevant information and facts from the searched paragraphs or documents, which in fact is very user friendly procedure.

As to claim 6, Milic-Frayling teaches a sorting section operatively connected to sort a plurality of question based on the gathered text (paragraph 55); and a determining section operatively connected to estimate the text included frequent question using at least some of the sorted plurality of question (paragraph 73, wherein the question is considered to be represented by search term).

Note: the interpretation of claim 6, is conducted in light of the objection as set forth above in this office action.

Response to Arguments

12. Applicant's arguments filed March 7, 2007 have been fully considered but they are not persuasive.

13. With respect to the applicant's assertion on page 11, second paragraph, stating that Milic does not teach estimating an importance degree using data which is paragraph, position information in a text of each paragraph, and estimation of paragraph in the corpus database, the examiner disagrees. Milic clearly teaches ranking process

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based on the designated information in the documents (wherein each downloaded document of interest contains at least one paragraph), further the position in a sentence is also given appropriate weight (paragraph 89) and to the best of the examiner's understanding, the "estimation of paragraph" is also utilized in Milic's ranking method (i.e. the estimation of a paragraph corresponding to ranking documents based on the highlighted text, wherein the highlighted portion is a document's section that pertains to user's search). Furthermore, it is also very well known in the art that in order to process or analyze some data, the files of interest have to be first stored, at least temporary for the time of the evaluation. Milic also teaches storing results, which would include paragraphs and ranks pertaining to a user's search (paragraph 59).

The Prior Art

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kummamuru et al (US Patent 6925460) disclose clustering data comprising the steps of identifying and collection plurality of data points, ranking them and summarizing the results (data points).

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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16. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiry

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela M. Lie whose telephone number is 571-272-8445. The examiner can normally be reached on M-F.


18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Angela M Lie



DON WONG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100